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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/540,475

03/31/2000

Nuri R. Dagdeviren

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10/04/2005

HITT GAINES P.C.

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EXAMINER

TSE, YOUNG TOI

ART UNIT

PAPER NUMBER

2637

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/540,475

Applicant(s)

DAGDEVIREN, NURI R.

Examiner

YOUNG T. TSE

Art Unit

2637

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-26,28-39,41-61 and 63-115 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-24,42,65 and 106-115 is/are allowed.
- 6) ☒ Claim(s) 1-3,7-17,25,26,39,41,43-53,63,64,66-69,71-81,83-91 and 94-105 is/are rejected.
- 7) ☒ Claim(s) 5,6,28-38,54-61,70,82,92 and 93 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings were received on March 3, 2005. These drawings are acceptable.
2. Figures 5 and 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the transformer as recited in claims 16, 78 and 88 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

4. Claims 2 and 5 are objected to because of the following informalities: in claim 2, line 2, "a partial result" should be "the partial result"; in claim 5, line 1, "the word "further" should be deleted. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 7-14, 72-76 and 84-86 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Both claims 7 and 9 depend upon claim 5, and further comprising a table is not understood since claim 5 already recited a table, the Applicant is requested to clarify the difference. Also see claims 72-73 and 84-85.

Wherein claims 8, 10, 11-14, 74-76 and 86 depend upon claims 7, 9, 72 and 84.

### ***Response to Arguments***

7. Applicant's arguments, see pages 28-29, filed March 3, 2005, with respect to the rejection(s) of claim(s) 1, 3, 15-17, 25, 39, 41, 43-44, 46-47, 64, 66-68, 77-80 and 87-89 under 35 U.S.C. 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Citta and Turner et al..

### ***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-3, 17, 25-26, 39, 41, 43-53, 63-64, 66-69, 71, 79-81, 83, 89-91, 94-97, 99-102 and 104-105 rejected under 35 U.S.C. 102(b) as being anticipated by Citta.

Citta (US Patent 5602,583) discloses a digital advanced television receiver in Figure 1 comprising a filter 10 and a precoder 20 for converting an input signal into constellation signal.

With respect to claims 1-3, 17, 41, 64, 25-26, 43-45, 66, 39, 46-48, 67, 49-53, 63, 68-69, 71, 79-81, 83, 89-91, 95-97, 99-102 and 104-105, the precoder 20 comprises a filter 26 filters the output or constellation signal from a modulo operator 24, a summation circuit 22 for summing the input signal having constellation levels 30 from levels -5 to +5, the output of the summation circuit 22 is inputted to the modulo operator 24, the filter generates new constellation levels 50 from levels -11 to +11. In the constellation level 30, -1 and +1 or the constellation level 50, -3 to +3 can be considered as basic levels, while the constellation levels -5 to -3 and +3 to +5 (or -11 to -5 and +5 to +11) can be considered as the set of levels outside the basis constellation levels. See column 2, line 30 to column 3, line 17.

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 15-16, 77-78 and 87-88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Citta in view of Turner et al..

Citta show the precoder 20 is used in a transmitter circuit of Figure 6, however, Citta fails to show or teach a digital to analog converter is used after the precoder and a transformer is later used after the digital to analog converter as recited in claims 15-16, 77-78 and 87-88.

Turner et al. (US Patent 6,393,029) also discloses a precoder 25 located in a transmitter circuit, the transmitter circuit further comprises a D/A converter and a transformer 37 after the D/A converter 33 through a LPF 35 (column 8, lines 66-67). Therefore, it would have been obvious to one of ordinary skill in the art to replace a D/A converter and a transformer after the precoder 20 of Citta's the transmitter circuit as taught by Turner in order to convert the digital signal of the precoder into an analog signal and further transform the analog signal for further processing.

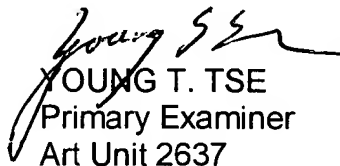
***Allowable Subject Matter***

12. Claims 18-24, 42, 65, and 106-115 are allowed.
13. Claims 5-6, 28-38, 54-61, 70, 82, 92-93 and 103 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
14. Claims 8, 10-14, 74-76 and 86 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
15. The following is a statement of reasons for the indication of allowable subject matter: the prior art fails to show or suggest that a precoder also includes a table for identifying a basis constellation of level and levels outside the basis constellation, wherein the levels outside the basis constellation are mapped onto levels inside the basis constellation as a function of an index associated with each level in the table.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Thursday and alternative Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The Central FAX Number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
YOUNG T. TSE  
Primary Examiner  
Art Unit 2637